

675 Wildwood Avenue
Rio Dell, CA 95562
(707) 764-3532



TO: Honorable Rio Dell City Council

FROM: Ron Henrickson, City Manager *RH*

DATE: February 21, 2012

SUBJECT: Wildwood Avenue Streetscape Consultant Agreement - GHD

ATTACHEMENT: Agreement

Council Action:

- A. By motion move to approve the Agreement with GHD for consulting services for the Wildwood Avenue Streetscape Project
- B. Take no action.

Background:

A number of years ago the City received grant funds from the State to design and construct a Wildwood Avenue streetscape; however, funding was frozen due to the State's financial crisis. Funding is now available for design and it is proposed to contract with GHD, the City Engineering Consultant. The intent is to have design complete by about May so that construction could begin after July when funding will be available for construction.

Financial Impact:

The cost of the project including the consulting Agreement will be paid from grant funds.

Staff Recommendation:

The City Manager recommends approval of the Agreement.

**Agreement
For Consulting Services for
The City of Rio Dell's
Downtown Pedestrian and Streetscape Improvements Project**

This agreement is based on a prime agreement between the City of Rio Dell and Winzler & Kelly dated October 10, 2003. All provisions of the prime agreement apply to this agreement unless noted otherwise in this agreement.

INTRODUCTION

The City of Rio Dell has requested \$51,000 of Regional Improvement Program or Interregional Improvement Program funding from the California Transportation Commission for the Downtown Pedestrian and Streetscape Improvements Project on Wildwood Avenue between Douglas Street and the Eagle Prairie Bridge. The project consists of bulb-outs, pedestrian refuge, medians, gateway sign, planting strips and/or boxes, tree planting, replacement of unused driveways with sidewalk, reconfiguration of parking and striping, street lighting and other related improvements. The project may also include interpretive signs and maps and bike facilities to enhance the experience of bicyclists using the Pacific Coast Bike Route.

Construction of the project will convey a sense of arrival to downtown, establish a positive image and reinforce community identity, promote pedestrian and vehicular safety, support the redevelopment effort in the downtown area and establish the design tone for streetscape improvements for future streetscape projects in Rio Dell.

The development of the conceptual design will be led by the City with GHD providing engineering and landscape architecture to assistance during the design development. GHD will provide the following scope of services to assist the City of Rio Dell on the Downtown Pedestrian and Streetscape Improvements Project along Wildwood Avenue.

SCOPE OF SERVICES

Task 1. - Landscape Architect Review

The GHD team will provide review and input on the conceptual plans by a licensed landscape architect. This effort will be led by the City and provided on an as requested basis. Specific tasks will to be completed by the landscape architect will include:

- Review of conceptual design developed by City Staff
- Recommendation of alternative project components
- Development of landscape details and features as requested
- Recommendation of plants and assistance with planting plan for landscaped areas.

Task 1 – Fee Estimate: \$8,500

Task 2. Concept Design Plans

Based on the conceptual design developed by the City, GHD will provide the following services including

- provide review of concept plans by Registered Traffic Engineer
- Draft conceptual design developed by City in AUTOCAD Civil 3D

- Incorporate details provided by landscape architect under the direction of the City
- Submit the conceptual design to Caltrans for review for TE eligibility and revise as directed by the City based on comments received by Caltrans
- Generally work with the City to revise and develop the concept to a level suitable for environmental documentation and

Task 2 – Fee Estimate: \$31,000

Task 3. - Preliminary Environmental Study & NEPA

This task includes completion of the Preliminary Environmental Study (PES) form and coordination with Caltrans for the completion of the NEPA Categorical Exclusion Determination Form and Checklist. As a part of this task GHD staff will participate in field review with Caltrans Local Assistance staff and Caltrans environmental staff to receive information regarding the environmental considerations for the project site as required by the State.

Task 3 – Fee Estimate: \$1,500

COMPENSATION

The project will be billed on a time and materials as needed basis using the fee schedule in effect at the time the work is performed. The fee for the scope outlined above and internal project management shall not exceed \$41,000 without prior authorization. Any changes to the scope items and associated fees will be negotiated with the City prior to the commencement of any additional or changed scope Work. Budget estimates provided for each task are preliminary and the final distribution of the budget may vary. Invoices will be prepared monthly and are due and payable by the City within 30 days of the date of the invoice. Interest at the rate of 1-1/2% per month will be charged on all outstanding balances. The extent of the work and the total cost will depend on the factors discussed under the Scope of Services. It is also recognized that the City's approach to developing this project may change and with it the proposed scope of work and that the City may be request to modify the above scope of services.

ASSUMPTIONS

This scope of work is based on the following assumptions:

- City to complete applications to PG&E
- No Special Environmental Studies will be required for NEPA
- City will prepare and submit reimbursement requests to Caltrans
- GHD will continue to prepare and submit programming, allocation and authorization requests under a separate contract with the City
- No Right-of-Way will be required to implement the project

PROJECT SCHEDULE

The estimated preliminary project schedule is shown below. Notice to proceed for this scope of work is anticipated on February 10, 2012

Activity/Task	Date	Comments
Notice to Proceed	2/10/12	
Caltrans Field Review	3/27/12	
Review Meeting with Landscape Architect	2/14/12	
Request for Reprogramming of const funds for Design	3/26/12	Requires 2 CTC mtgs – May and June
Complete Conceptual Design	4/15/12	
Complete PES/NEPA	4/30/12	
Request for Allocation for Plans Specifications and Estimate	4/30/12	Deadline for June CTC meeting

AGREED

City of Rio Dell

GHD, Inc.

Ron Henrickson, City Manager, Date

Steven Allen, Managing Principal, Date

675 Wildwood Avenue
Rio Dell, CA 95562
(707) 764-3532



TO: Honorable Rio Dell City Council

THROUGH: Ron Henrickson, City Manager *RH*

FROM: Randy Jensen, Water and Roadways Sup. & Carla Ralston, P.W. Admin

DATE: February 10, 2012

SUBJECT: Cross Connection Control Ordinance

ATTACHMENT: Draft Cross Connection Control Ordinance

RECEIVE AND FILE DRAFT CROSS CONNECTION CONTROL ORDINANCE:

Attached is a Draft Cross Connection Control Ordinance for comments and questions. Sections recommended for removal are noted with a ~~double-strikeout~~ and recommended additions are noted with yellow highlight.

BACKGROUND AND DISCUSSION

The City of Rio Dell has been operating with a Cross Connection Program that was developed in 1988. Title 17 of the California Administrative Code states that a water supplier shall adopt rules or an ordinance to implement a cross connection control program. Updated language and methods of enforcement are needed to assure the safety of our drinking water distribution system. Recommendations are to comply with Title 17 requirements and meet the needs of the City of Rio Dell.

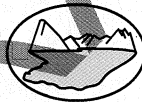
CITY OF RIO DELL CROSS-CONNECTION CONTROL PROGRAM

Prepared for:
City of Rio Dell
675 Wildwood Ave.
Rio Dell, CA 95562

February 9, 2012

Prepared by:
Orrin Plocher and Stan Thiesen

of



Freshwater Environmental Services

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1.0 INTRODUCTION

The purpose of this report is to ensure that the City of Rio Dell is in compliance with State laws concerning cross-connections, these being Section 1003 of the Uniform Plumbing Code, the California Health and Safety Code, and the California Administrative Code -- Title 17 - Public Health. The applicable portion of the California Code of Regulations is Title 17 Division 1. State Department of Health Services, Chapter 5, Sanitation (environmental) subchapter 1, Engineering (sanitary) group 4, Drinking Water Supplies, Article 1 and Article 2 included as Appendix A.

A cross-connection is an unprotected actual or potential connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or a substance that is not or cannot be approved as safe, wholesome, and potable. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, or other devices through which backflow could occur, shall be considered to be cross-connections. The Sections of this report will cover the following topics:

1. Introduction of the Rio Dell cross-connection program.
2. Adoption of an ordinance to implement a cross-connection program.
3. Conducting of surveys to identify water user premises where cross-connections are likely to occur.
4. Provisions of backflow protection by the water user at the user's connection or within the user's premises.
5. Provision of at least one person trained in cross-connection control to carry out the cross-connection program.
6. Establishment of a procedure or system for testing backflow prevention devices (preventers).
7. Maintenance of records of locations, tests, and repairs of backflow preventers.

2.0 CROSS-CONNECTION CONTROL ORDINANCE

Title 17 of the California Administrative Code states that a water supplier, that being the City of Rio Dell, shall adopt rules or an ordinance to implement a cross-connection control program.

On May 17, 1988 Rio Dell adopted an ordinance, No. 196, entitled "An Ordinance of the City of Rio Dell Relating to Cross-Connection Control to the City Water System."

Based on a review of the existing Rio Dell ordinance, Title 17 requirements, and the intent of the City of Rio Dell edits to the existing code are recommended. Appendix B contains the existing Rio Dell ordinance with suggested edits noted. Sections recommended for removal are noted with a ~~double-strikeout~~ and recommended additions are noted with yellow highlight.

The recommended edits are intended to comply with Title 17 requirements and meet the needs of the City or Rio Dell.

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3.0 CROSS-CONNECTION SURVEY

Title 17 requires the City of Rio Dell to "conduct surveys to identify water user premises where cross-connections are likely to occur".

Residential

To meet the above requirement, the City will send cross-connection survey forms to all residential water users. The cover letters and residential cross-connection survey are included in Appendix C. The City will track the returned forms and send a second mailing to water users that do not respond to the first survey.

Based on the returned survey forms, the City of Rio Dell will determine which water users already have backflow preventers and which users meet the criteria for requiring backflow preventers.

The previous Cross-Connection Control Program (Winzler & Kelly, 1988) included a list of 19 properties with existing water sources. After 1988 and prior to 1991 a survey was conducted that resulted in owners certifications indicating that "there are not an auxiliary supply of water (well, cistern, spring or any other source of water) on the property" (Appendix D). Of the properties identified in the 1988 program eight remain as having potential auxiliary water supplies that have not been owner certified (Appendix E).

The City has a list from Humboldt County indicating properties in Rio Dell with water wells based on well permits issued by the County (Appendix F). The water users listed in Appendix E and F will be sent a modified cover letter along with the survey indicating that their property has been previously identified as having an auxiliary water supply and allow them to provide documentation that the source of the potential cross-connection has been removed. The modified cover letter for water users thought to have auxiliary water supplies is included in Appendix G.

Commercial

The City will send cross-connection survey forms to all commercial water users. The cover letter and commercial cross-connection survey are included in Appendix H. The City will track the returned forms and make a second mailing to water users that do not respond to the first survey.

Based on the returned survey forms the City of Rio Dell will determine which water users already have backflow preventers, which users meet the criteria for requiring backflow preventers, and which properties warrant a site review to determine the need for cross-connection preventers.

Additionally the City of Rio Dell has acquired a list of commercial facilities in Rio Dell that are regulated due to their storage or use of hazardous materials from Humboldt County (Appendix I). Rio Dell City water department staff will perform site reviews at all sites listed as having hazardous materials to determine the need for cross-connection preventers.

Based on the results of the surveys and site reviews the City of Rio Dell will determine which residential and commercial water users are required to have cross-connection preventers. A letter will be sent to all water users identified with the need for cross-connection protection indicating the requirement to install or test existing cross-connection preventers.

4.0 PROVISIONS OF BACKFLOW PREVENTION

Title 17 of the California Administrative Code states that a water supplier's cross-connection program shall include provisions of backflow protection by the water user at the user's connection or within the user's premises or both.

Rio Dell Regulation (RDR) 13.15.070 (below) specifies types of backflow prevention devices required depending on the nature of the cross-connection.

13.15.070 Types of backflow prevention device required.

The type of prevention device required by the City of Rio Dell depends on the degree of hazard which exists, as follows:

(1) An air-gap separation or reduced pressure backflow prevention device shall be installed where the water supply may be contaminated by sewage, industrial waste of a toxic nature, or other contaminant which would cause a health hazard.

(2) In the case of a substance which may be objectionable but not hazardous to health, a double check valve assembly, air-gap separation or reduced pressure principle backflow prevention device shall be installed.

(3) Pressure type vacuum breaker units (spring loaded) are the approved units for City-supplied irrigation systems. The unit must be installed at least 12 inches above the highest fixture point of water usage and in such a manner that drainage will preclude back pressure. [Ord. 196 § 7, 1988.]

RDR 13.15.070 is in conformance with Section 7604 of California's Administrative Code.

5.0 CROSS-CONNECTION TRAINING

The City of Rio Dell is requiring individual water users to be responsible for the installation and testing of backflow prevention devices. The City of Rio Dell will provide a list of trained and certified testers in the area to choose from for testing. If technical questions arise regarding the necessity or type of backflow prevention, the City water staff will contact the Department of Public Health for assistance and/or will contract with a licensed backflow prevention device tester to assist in the determination.

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6.0 PROCEDURE FOR TESTING BACKFLOW PREVENTER

Title 17 of the California Administrative Code states that a water supplier shall establish a procedure or system for testing backflow prevention devices. Section 7605 of the California Administrative Code states the following on testing and maintenance of backflow prevention devices.

- The water supplier shall assure that adequate maintenance and periodic testing are provided by the water user to ensure their proper operation. (RDR 13.15.060, and RDR 13.15.110)
- Backflow preventers shall be tested by persons who have demonstrated their competency in testing of these devices to the water supplier or health agency. (RDR 13.15.110)
- Backflow preventers shall be tested at least annually or more frequently if determined to be necessary by the health agency or water supplier. When devices are found to be defective, they shall be repaired or replaced in accordance with the provisions of this Chapter. (RDR 13.15.110)
- Backflow preventers shall be tested immediately after they are installed, relocated or repaired and not placed in service unless they are functioning as required. (RDR 13.15.114)
- The water supplier shall notify the water user when testing of backflow preventers is needed. The notice shall contain the date when the test must be completed. (RDR13.15.114)

7.0 MAINTENANCE OF TEST RECORDS

The California Administrative Code, Title 17, states that a water supplier shall maintain records of locations, tests, and repairs of backflow preventers. These maintenance and testing records shall be maintained by the water purveyor for a minimum of three (3) years.

Assembly Records

Records of assembly type, size, manufacturer, installation date, location, account number, consumer of record, and repair history shall be kept electronically.

Testing Records

Test results on all assemblies shall be kept both electronically and in hard copy form.

Life of Records

Assembly records shall be kept for the life of the assembly. Test results shall be kept for the mandatory three (3) years (as per Title 17).

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8.0 REFERENCES

Winzler & Kelly Consulting Engineers, 1988. Rio Dell's Cross-Connection Control Program.

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**APPENDIX A
CALIFORNIA TITLE 17 CODE OF REGULATIONS,
DIVISION 1, STATE DEPARTMENT OF HEALTH
SERVICES, CHAPTER 5, SANITATION
(ENVIRONMENTAL), SUBCHAPTER 1, ENGINEERING
(SANITARY) GROUP 4, DRINKING WATER SUPPLIES,
ARTICLE 1 AND ARTICLE 2**

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NOTE: This publication is meant to be an aid to the staff of the CDPH Drinking Water Program and cannot be relied upon by the regulated community as the State of California's representation of the law. The published codes are the only official representation of the law. Refer to the published codes—in this case, 17 CCR and 22 CCR—whenever specific citations are required. Statutes related to CDPH's drinking water-related activities are in the Health & Safety Code, the Water Code, and other codes.

TITLE 17 CODE OF REGULATIONS

DIVISION 1. STATE DEPARTMENT OF HEALTH SERVICES

CHAPTER 5. SANITATION (ENVIRONMENTAL)

SUBCHAPTER 1. ENGINEERING (SANITARY)

GROUP 4. DRINKING WATER SUPPLIES

Article 1. General

§7583. Definitions.

In addition to the definitions in Section 116275 of the Health and Safety Code, the following terms are defined for the purpose of this Chapter:

(a) "Approved Water Supply" is a water supply whose potability is regulated by a State or local health agency.

(b) "Auxiliary Water Supply" is any water supply other than that received from a public water system.

(c) "Air-gap Separation (AG)" is a physical break between the supply line and a receiving vessel.

(d) "AWWA Standard" is an official standard developed and approved by the American Water Works Association (AWWA).

(e) "Cross-Connection" is an unprotected actual or potential connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or a substance that is not or cannot be approved as safe, wholesome, and potable. By-pass arrangements, jumper connections, removable sections, swivel or changeover devices, or other devices through which backflow could occur, shall be considered to be cross-connections.

(f) "Double Check Valve Assembly (DC)" is an assembly of at least two independently acting check valves including tightly closing shut-off valves on each side of the check valve assembly and test cocks available for testing the watertightness of each check valve.

(g) "Health Agency" means the California Department of Health Services, or the local health officer with respect to a small water system.

(h) "Local Health Agency" means the county or city health authority.

(i) "Reclaimed Water" is a wastewater which as a result of treatment is suitable for uses other than potable use.

(j) "Reduced Pressure Principle Backflow Prevention Device (RP)" is a backflow preventer incorporating not less than two check valves, an automatically operated differential relief valve located between the two check valves, a tightly closing shut-off valve on each side of the check

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valve assembly, and equipped with necessary test cocks for testing.

(k) "User Connection" is the point of connection of a user's piping to the water supplier's facilities.

(l) "Water Supplier" is the person who owns or operates the public water system.

(m) "Water User" is any person obtaining water from a public water supply.

§7584. Responsibility and scope of program.

The water supplier shall protect the public water supply from contamination by implementation of a cross-connection control program. The program, or any portion thereof, may be implemented directly by the water supplier or by means of a contract with the local health agency, or with another agency approved by the health agency. The water supplier's cross-connection control program shall for the purpose of addressing the requirements of Sections 7585 through 7605 include, but not be limited to, the following elements:

(a) The adoption of operating rules or ordinances to implement the cross-connection program.

(b) The conducting of surveys to identify water user premises where cross-connections are likely to occur,

(c) The provisions of backflow protection by the water user at the user's connection or within the user's premises or both,

(d) The provision of at least one person trained in cross-connection control to carry out the cross-connection program.

(e) The establishment of a procedure or system for testing backflow preventers, and

(f) The maintenance of records of locations, tests, and repairs of backflow preventers.

§7585. Evaluation of hazard.

The water supplier shall evaluate the degree of potential health hazard to the public water supply which may be created as a result of conditions existing on a user's premises. The water supplier, however, shall not be responsible for abatement of cross-connections which may exist within a user's premises. As a minimum, the evaluation should consider: the existence of cross-connections, the nature of materials handled on the property, the probability of a backflow occurring, the degree of piping system complexity and the potential for piping system modification. Special consideration shall be given to the premises of the following types of water users:

(a) Premises where substances harmful to health are handled under pressure in a manner which could permit their entry into the public water system. This includes chemical or biological process waters and water from public water supplies which have deteriorated in sanitary quality.

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(b) Premises having an auxiliary water supply, unless the auxiliary supply is accepted as an additional source by the water supplier and is approved by the health agency.

(c) Premises that have internal cross-connections that are not abated to the satisfaction of the water supplier or the health agency.

(d) Premises where cross-connections are likely to occur and entry is restricted so that cross-connection inspections cannot be made with sufficient frequency or at sufficiently short notice to assure that cross-connections do not exist.

(e) Premises having a repeated history of cross-connections being established or re-established.

§7586. User supervisor.

The health agency and water supplier may, at their discretion, require an industrial water user to designate a user supervisor when the water user's premises has a multipiping system that convey various types of fluids, some of which may be hazardous and where changes in the piping system are frequently made. The user supervisor shall be responsible for the avoidance of cross-connections during the installation, operation and maintenance of the water user's pipelines and equipment.

Article 2. Protection of Water System

§7601. Approval of backflow preventers.

Backflow preventers required by this Chapter shall have passed laboratory and field evaluation tests performed by a recognized testing organization which has demonstrated their competency to perform such tests to the Department.

§7602. Construction of backflow preventers.

(a) Air-gap Separation. An Air-gap separation (AG) shall be at least double the diameter of the supply pipe, measured vertically from the flood rim of the receiving vessel to the supply pipe; however, in no case shall this separation be less than one inch.

(b) Double Check Valve Assembly. A required double check valve assembly (DC) shall, as a minimum, conform to the AWWA Standard C506-78 (R83) adopted on January 28, 1978 for Double Check Valve Type Backflow Preventive Devices which is herein incorporated by reference.

(c) Reduced Pressure Principle Backflow Prevention Device. A required reduced pressure principle backflow prevention device (RP) shall, as a minimum, conform to the AWWA Standard C506-78 (R83) adopted on January 28, 1978 for Reduced Pressure Principle Type Backflow Prevention Devices which is herein incorporated by reference.

§7603. Location of backflow preventers.

(a) Air-gap Separation. An air-gap separation shall be located as close as practical to the user's connection and all piping between the user's connection and the receiving tank shall be

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entirely visible unless otherwise approved in writing by the water supplier and the health agency.

(b) Double Check Valve Assembly. A double check valve assembly shall be located as close as practical to the user's connection and shall be installed above grade, if possible, and in a manner where it is readily accessible for testing and maintenance.

(c) Reduced Pressure Principle Backflow Prevention Device. A reduced pressure principle backflow prevention device shall be located as close as practical to the user's connection and shall be installed a minimum of twelve inches (12") above grade and not more than thirty-six inches (36") above grade measured from the bottom of the device and with a minimum of twelve inches (12") side clearance.

§7604. Type of protection required.

The type of protection that shall be provided to prevent backflow into the public water supply shall be commensurate with the degree of hazard that exists on the consumer's premises. The type of protective device that may be required (listed in an increasing level of protection) includes: Double check Valve Assembly-(DC), Reduced Pressure Principle Backflow Prevention Device-(RP) and an Air gap Separation-(AG). The water user may choose a higher level of protection than required by the water supplier. The minimum types of backflow protection required to protect the public water supply, at the water user's connection to premises with various degrees of hazard, are given in Table 1. Situations not covered in Table 1 shall be evaluated on a case-by-case basis and the appropriate backflow protection shall be determined by the water supplier or health agency.

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TABLE 1
TYPE OF BACKFLOW PROTECTION REQUIRED

Degree of Hazard	Minimum Type of Backflow Prevention
(a) Sewage and Hazardous Substances	
(1) Premises where there are waste water pumping and/or treatment plants and there is no interconnection with the potable water system. This does not include a single-family residence that has a sewage lift pump. A RP may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
(2) Premises where hazardous substances are handled in any manner in which the substances may enter the potable water system. This does not include a single-family residence that has a sewage lift pump. A RP may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
(3) Premises where there are irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected.	RP
(b) Auxiliary Water Supplies	
(1) Premises where there is an unapproved auxiliary water supply which is interconnected with the public water system. A RP or DC may be provided in lieu of an AG if approved by the health agency and water supplier	AG
(2) Premises where there is an unapproved auxiliary RP water supply and there are no interconnections with the public water system. A DC may be provided in lieu of a RP if approved by the health agency and water supplier.	RP
(c) Recycled water	
(1) Premises where the public water system is used to supplement the recycled water supply.	AG
(2) Premises where recycled water is used, other than as allowed in paragraph (3), and there is no interconnection with the potable water system.	RP
(3) Residences using recycled water for landscape irrigation as part of an approved dual plumbed use area established pursuant to sections 60313 through 60316 unless the recycled water supplier obtains approval of the local public water supplier, or the Department if the water supplier is also the supplier of the recycled water, to utilize an alternative backflow protection plan that includes an annual inspection and annual shutdown test of the recycled water and potable water systems pursuant to subsection 60316(a).	DC
(d) Fire Protection Systems	
(1) Premises where the fire system is directly supplied from the public water system and there is an unapproved auxiliary water supply on or to the premises (not interconnected).	DC
(2) Premises where the fire system is supplied from the public water system and interconnected with an unapproved auxiliary water supply. A RP may be provided in lieu of an AG if approved by the health agency and water supplier.	AG

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- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| (3) Premises where the fire system is supplied from the public water system and where either elevated storage tanks or fire pumps which take suction from private reservoirs or tanks are used. | DC |
| (4) Premises where the fire system is supplied from the public water system and where recycled water is used in a separate piping system within the same building. | DC |
| (e) Dockside Watering Points and Marine Facilities | |
| (1) Pier hydrants for supplying water to vessels for any purpose. | RP |
| (2) Premises where there are marine facilities. | RP |
| (f) Premises where entry is restricted so that inspections for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that do not exist. | RP |
| (g) Premises where there is a repeated history of cross-connections being established or re-established. | RP |

§7605. Testing and maintenance of backflow preventers.

- (a) The water supplier shall assure that adequate maintenance and periodic testing are provided by the water user to ensure their proper operation.
- (b) Backflow preventers shall be tested by persons who have demonstrated their competency in testing of these devices to the water supplier or health agency.
- (c) Backflow preventers shall be tested at least annually or more frequently if determined to be necessary by the health agency or water supplier. When devices are found to be defective, they shall be repaired or replaced in accordance with the provisions of this Chapter.
- (d) Backflow preventers shall be tested immediately after they are installed, relocated or repaired and not placed in service unless they are functioning as required.
- (e) The water supplier shall notify the water user when testing of backflow preventers is needed. The notice shall contain the date when the test must be completed.
- (f) Reports of testing and maintenance shall be maintained by the water supplier for a minimum of three years.

APPENDIX B
MODIFIED RIO DELL ORDINANCE CHAPTER 13

DRAFT

Rio Dell Chapter 13.15 CROSS CONNECTION CONTROL

Sections:

- 13.15.010 Purpose.
- 13.15.020 Application.
- 13.15.030 Enforcement.
- 13.15.040 Definitions.
- 13.15.050 Cross connections prohibited.
- 13.15.060 Installation of backflow prevention device.
- 13.15.070 Types of backflow prevention device required.
- 13.15.080 Location.
- 13.15.090 Installation.
- 13.15.100 Approved backflow devices.
- 13.15.110 Inspections.
- 13.15.111 New service requirements
- 13.15.112 Water system survey.
- 13.15.113 Customer notification - Assembly installation.
- 13.15.114 Customer notification - Testing and maintenance.
- 13.15.120 Right of entry for inspections.
- 13.15.130 Termination of services.
- 13.15.140 Rates.

13.15.010 Purpose.

*The purpose of this chapter, in conjunction with Section 1003 of the Uniform Plumbing Code and the State of California Public Health Administrative Code, Title 17, is to protect the public health by the control and prevention of actual and potential cross connection (1) by requiring the proper installation and safeguarding of service lines leading to premises where cross connections exist or are likely to occur; (2) by periodic inspecting; (3) by regulating plumbing within premises to minimize the danger of contamination to the water system on the premises or the public water system itself. [Ord. 196 § 1, 1988.]

13.15.020 Application.

This regulation applies throughout the City to all premises and the owners and occupants thereof served by the City's water system. It applies to all systems installed prior to or after its enactment. Every owner and every occupant of premises covered by this regulation is responsible for compliance with its terms and shall be strictly liable for all damages incurring as a result of failure to comply with express terms and provisions contained herein. [Ord. 196 § 2, 1988.]

13.15.030 Enforcement.

The Director of Public Works will administer the provisions of this chapter. Any deviation, modification, changes from standard or approval of methods and material shall be by the Director. [Ord. 196 § 3, 1988.]

13.15.040 Definitions.

The following definitions will apply to interpretation of this chapter:

“Air gap separation” means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level diameter of the supply pipe measured vertically above the flood level rim of the vessel. In no case may the gap be less than one inch.

“Auxiliary supply” means any water source or system other than the public potable water system that may be available in the building or on the premises.

“Backflow” means the reversal of flow, other than in the intended direction into the distribution of the public water system, from a service connection.

(a) “Back pressure” means the backflow caused by a pump, elevated tank, boiler, or other means that could create pressure within the system greater than the City water supply.

(b) “Back siphonage” means a form of backflow due to a negative or subatmospheric pressure within the water system.

“Backflow prevention device” means an approved device to counteract back pressure or prevent back siphonage.

“Cross connection” means any physical arrangement whereby a public water system is connected directly or indirectly with any other nonpotable water system sewer, drain, conduit, pool, storage, reservoir, plumbing fixture, or other device which contains, or may contain, contaminated water, sewage, or other waste or liquid of unknown or unsafe quality which may be capable of imparting contamination into the public water system as a result of backflow. Bypass arrangements, jumper connections, moveable sections, swivel or changeover devices, or other temporary or permanent devices through which, or because of which, backflow could occur are considered to be cross connections.

“Double check valve assembly (DCVA)” means an approved assembly composed of two single, independently acting check valves, including tightly closing shutoff valves located at each end of the assembly and suitable connections for testing the watertightness of each check valve.

“Reduced pressure principle backflow prevention device (RPBD)” means an approved device incorporating two or more check valves and an automatically operating differential relief valve located between the two checks, two shutoff valves, and equipped with the necessary appurtenances for testing. The device must operate to maintain the pressure in the zone between the two check valves, less than the pressure on the public water system side of the device. At cessation of normal flow, the pressure between the check valves must be less than the supply pressure. In case of leakage of either check valve, the differential relief valve must operate to maintain the reduced pressure by discharging to the atmosphere. When the inlet pressure drops below two pounds per square inch, the relief valve must open

to the atmosphere, thereby providing an atmospheric zone between the two check valves. [Ord. 196 § 4, 1988.]

13.15.050 Cross connections prohibited.

Except as provided below, all cross connections, whether or not they are controlled by automatic devices such as check valves or by hand-operated mechanisms such as gate valves or stop cocks, are prohibited.

Failure on the part of persons, firms or corporations to discontinue the use of all cross connections and to physically separate cross connections is sufficient cause for the immediate discontinuance of public water services to the premises. [Ord. 196 § 5, 1988.]

13.15.060 Installation of backflow prevention device.

Backflow prevention devices shall be installed and properly maintained at the service connection or within any premises where in the judgment of the Director of Public Works the nature and extent of activity on the premises, materials used in connection with the activities or materials stored on the premises would present an immediate or potential hazard to the public's health should a cross connection occur, even though such cross connection does not exist at the time the backflow prevention device is required to be installed. This includes:

- (1) Premises having an auxiliary water supply.
- (2) Premises having internal cross connections that are not correctable, or intricate plumbing arrangements which make it impracticable to ascertain whether or not cross connections exist.
- (3) Premises where entry is restricted so that inspection for cross connections cannot be made with sufficient frequency or at sufficiently short notice to ensure that cross connections do not exist.
- (4) Premises having a history of cross connections being established or reestablished.
- (5) Premises on which any substance is handled under pressure so as to permit entry into the public water system or where a cross connection could reasonably be expected to occur. This includes the handling of process waters and cooling waters.
- (6) Premises with commercial or residential water softener units (backwash).
- (7) Premises where materials of a toxic or hazardous nature are handled such that if backflow should occur, a serious health hazard may result.
- (8) The following types of facilities will fall into one of the above categories where a backflow prevention device shall be installed at these facilities as set forth in the California Administrative Code, Title 17, Public Health, unless the Director of Public Works determines that no health hazard exists:

- (a) Hospitals, mortuaries, clinics;

- (b) Laboratories;
- (c) Sewage treatment plants;
- (d) Food and beverage processing plants;
- (e) Chemical plants using a water process;
- (f) Metal plating industries;
- (g) Petroleum processing or storage plants;
- (h) Radioactive material processing plants or nuclear reactors;
- (i) Car washes;
- (j) Any building or structure three stories or higher;
- (k) Others specified by the certified cross connection specialist. [Ord. 196 § 6, 1988.]

13.15.070 Types of backflow prevention device required.

The type of prevention device required by the City of Rio Dell depends on the degree of hazard which exists, as follows:

(1) An air-gap separation or reduced pressure backflow prevention device shall be installed where the water supply may be contaminated by sewage, industrial waste of a toxic nature, or other contaminant which would cause a health hazard.

(2) In the case of a substance which may be objectionable but not hazardous to health, a double check valve assembly, air-gap separation or reduced pressure principle backflow prevention device shall be installed.

(3) Pressure type vacuum breaker units (spring loaded) are the approved units for City-supplied irrigation systems. The unit must be installed at least 12 inches above the highest fixture point of water usage and in such a manner that drainage will preclude back pressure. [Ord. 196 § 7, 1988.]

13.15.080 Location.

Backflow prevention devices required by this chapter must be installed at the meter, at the property line of the premises when meters are not used or at a location designated by the Director of Public Works. The device must be located so as to be readily accessible for maintenance and testing, and where part of the device will not be submerged or hidden from proper inspection. [Ord. 196 § 8, 1988.]

13.15.090 Installation.

Backflow prevention devices required by this chapter must be installed under the supervision of the DPW. [Ord. 196 § 9, 1988.]

13.15.100 Approved backflow devices.

Any protective device required by this chapter must be a model approved by a hydraulics testing laboratory recognized by the State Department of Health Services, such as the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research, as specified in their latest approved list of backflow devices. [Ord. 196 § 10, 1988.]

13.15.110 Inspections.

Backflow prevention devices must be inspected and tested annually or more often when inspections indicate any occasion of failure. ~~An annual inspection fee will be charged.~~ The device must be repaired, overhauled, or replaced whenever it is found to be defective. Inspections and tests must be made by a certified cross connection specialist ~~or by the City's Water Department personnel~~ and the device tagged. Inspections, testing, maintenance and repairs will be at the expense of the owner or occupant. [Ord. 196 § 11, 1988.]. The City of Rio Dell will maintain a list of locally available qualified backflow prevention device testers and will provide the list to customers that are required to test backflow prevention devices.

13.15.111 New Service Requirements.

The City shall review all requests for new services to determine if backflow protection is needed. Plans and specifications must be submitted to the City upon request for review of possible cross-connection hazards as a condition of service for new service connections. If it is determined that a backflow prevention assembly is necessary to protect the public water system, the required assembly must be installed before services will be granted.

13.15.112 Water System Survey.

The City of Rio Dell will periodically conduct necessary surveys of water users to evaluate the degree of potential health hazards. The City of Rio Dell shall notify users when backflow prevention assemblies are required to be installed (Rio Dell Regulation 13.15.113). The City of Rio Dell shall notify users when backflow prevention assemblies are required to be tested (Rio Dell Regulation 13.15.114).

13.15.113 Customer Notification - Assembly installation.

The City will notify the water user of the survey findings, listing the corrective actions to be taken if any are required. A period of 60 days will be given to complete all corrective actions required including installation of backflow prevention assemblies.

A second notice will be sent to each water user who does not take the required corrective actions prescribed in the first notice within the 60-day period allowed. The second notice will give the water user a two-week period to take the required corrective action. If no action is taken within the 2-week period the City may terminate water service to the affected water user until the required corrective actions are taken.

13.15.114 Customer Notification - Testing and Maintenance.

The City will notify each affected water user when it is time for the backflow prevention assembly installed on their service connection to be tested. This written notice shall give the water user 30 days to have the assembly tested and supply the water user with the necessary form to be completed and resubmitted to the City.

A second notice shall be sent to each water user who does not have their backflow prevention assembly tested as prescribed in the first notice within the 30 day period allowed. The second notice will give the water user a two-week period to have his/her backflow prevention assembly tested. If no action is taken within the 2-week period the City may terminate water service to the affected water user until the subject assembly is tested.

Backflow preventers shall be tested immediately after they are installed, relocated or repaired and not placed in service unless they are functioning as required.

13.15.120 Right of entry for inspections.

An authorized employee of the City shall have reasonable access to any premises supplied with water for the purpose of making inspections for cross connection control, inspections of the water system and water meters upon such premises. [Ord. 196 § 12, 1988.]

13.15.130 Termination of services.

~~The failure of the owner or occupant to cooperate in the installation, maintenance, testing or inspection of backflow prevention devices required by this chapter may have water service discontinued after service of 24 hours' notice of the intention of the City to do so. [Ord. 196 § 13, 1988.]~~

When the City of Rio Dell encounters water uses that represent a clear and immediate hazard to the potable water supply that cannot be immediately abated, the procedure for terminating water service shall be instituted. Conditions or water use that create a basis for water service termination shall include, but are not limited to, the following:

1. Refusal to install or to test a backflow prevention assembly, or to repair or replace a faulty backflow prevention assembly.
2. Direct or indirect connection between the public water system and a sewer line.
3. Unprotected direct or indirect connection between the public water system and a system or equipment containing contaminants.
4. Unprotected direct or indirect connection between the public water system and an auxiliary water system.

For condition 1 the City of Rio Dell will terminate service to a water user's premises after proper notification has been sent. If no action is taken within the allowed time period, water service shall be terminated.

For conditions 2, 3, or 4, the City of Rio Dell shall take the following steps:

1. Make reasonable effort to advise the water user of the intention to terminate water service; and
2. Terminate water service and lock service valve. The water service shall remain inactive until correction of the violations has been approved by the City of Rio Dell.

13.15.140 Rates.

Rates will be established or amended, whenever necessary, by resolution of the City Council. [Ord. 196 § 14, 1988.]

DRAFT

**APPENDIX C
COVER LETTER AND RESIDENTIAL CROSS-
CONNECTION CONTROL SURVEY FORM**

DRAFT

675 Wildwood Avenue
Rio Dell, CA 95562
(707) 764-3532



To: Residential Water Users

From: Rio Dell Public Works Department

Date: March 1, 2012

Subject: Protecting Rio Dell's Drinking Water

As required by the State of California Administrative Code (Title 17), it is the responsibility of the City of Rio Dells to protect the public drinking water supply from contamination that might occur through unintentional "backflow." Backflow is the undesirable reversal of flow in a drinking water distribution system which may introduce objectionable substances into the drinking water system.

A backflow situation could occur if the drinking water system suddenly loses pressure. For example, if large quantities of water are being pulled from the system to fight a fire, or there is a pipeline break with the loss of significant amounts of water.

An example is a home or business fire sprinkler system. Such a system gets its water from the same source as that building's drinking water. However, water can sit in the fire sprinkler line, become stale and sour, and be unfit for drinking. A backflow prevention assembly in this example has a valve which only allows water to move in one direction, so it will prevent the stale water in the sprinkler lines from reversing and getting into the drinking water system. The same goes for landscape irrigation pipelines for a home or business, or an industrial site that uses chemicals and water.

Harmful or objectionable substances may be gases, liquids, or solids such as chemicals, waste products, contents of auxiliary water systems (like groundwater wells and springs), or another substance that may change the color, add odor, or in any way change the quality of the drinking water.

Protecting the City's drinking water supply can only be achieved by identifying sites at possible risk for harmful backflow, and by periodically inspecting and evaluating backflow prevention assemblies.

As part of this ongoing process City of Rio Dell is requesting that you review the information enclosed, complete the enclosed Residential Cross-Connection Questionnaire, and return it to City Hall. Your cooperation is essential for the keeping our drinking water safe. If you have any questions please call: Randy Jensen at (707) 764-3541

City of Rio Dell

Residential Cross-Connection Questionnaire

Please read the enclosed brochure, look over the plumbing in your home and answer the questions below. Thank you for helping the City of Rio Dell meet this State of California regulation.

Please return by: _____

Question	Yes	No	Do not know
1. Is there any other source of water, such as a private well, spring, or pond at this address?			
If yes, is it protected by a testable backflow preventer?			
2. Do you have an irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected.?			
If yes, is it protected by a testable backflow preventer?			
3. Do you have a swimming pool or hot tub that is filled by a direct water line?			
If you fill it by direct water line, is it protected by a reduced pressure backflow preventer? (See brochure)			
4. To heat your home, do you use a hot water or steam boiler? (Not hot water heater)			
If yes, is it protected by a reduced pressure backflow preventer?			
(All boilers are required to have a RP)			
Are chemicals used in the water?			
If yes, please list the chemicals:			
5. Do you have a photo lab, medical, biological, veterinarian or farm equipment, or any other chemical or medical labs or facilities at this address?			
If yes, is it protected by a testable backflow preventer?			

The California Department of Public Health, Title 17 of the California Code of Regulations (Sections 7584-7605) directs us to survey all our customers, keep records of all tests on testable backflow preventers, and issue a reminder notice when testing is due. The customer shall provide access for inspection and testing by the City at all reasonable times to determine whether cross connections, sanitary hazards or other violations of the City's water rules exist.

Thank you. This survey will help prevent accidental contamination of our drinking water system. Please print name, phone number, sign, and Date.

Name (print) _____

Address _____

Phone number _____

Signature _____

Date _____

If you have any questions about cross contamination or backflow prevention, please call the City of Rio Dell Water Department at (707) 764-3541.

Cross Connections and Backflow Prevention

Potential cross connection areas

1. Commercial and Industrial

Bottling plants
Fire systems
Heating and cooling systems
Mixing tanks
Paint and ink mills
Printing plants
Plating works
Mortuaries
Veterinary clinics
Dental clinics
Medical clinics
Water-cooled equipment

2. Leisure Areas

Campgrounds
County fairgrounds
Parks and play grounds
Golf courses
Swimming pools
Fountains
Recreation waterfront areas
Recreational vehicle connections

3. Residential

Basement and outdoor Hose connections
Sprinkler systems
Swimming pools
Hot tub or spa
Chemical/photo lab facilities
Livestock waterers, tank fillers
Solar heating systems
Boilers

Protect yourself from backflow incidents

1. Check your faucets to make sure all faucet endpoints are above the flood level of the sink, tub, basin or other apparatus they supply.

2. Protect your faucet extensions by installing proper backflow prevention devices on all faucets capable of having a hose or other extension attached.

3. Check drain lines (refrigerator drink dispensers, water softeners, heat exchangers, etc.) to make sure there is an adequate air gap between the drain line and the floor drain or sewer line into which they discharge.

4. Never use unprotected faucets to fill non-drinking water containers (i.e., water beds, wading pools, stock tanks, hot tubs, etc.).

Phone numbers

Water emergencies (707) 764-3541.

DEFINITIONS

Cross Connection: An actual or potential connection between the safe drinking water supply and a source of contamination or pollution. All cross connections need backflow preventers.

Backflow Preventer: A device or process that prevents impurities or contaminants from being drawn into the safe drinking water supply. There are testable and nontestable preventers.

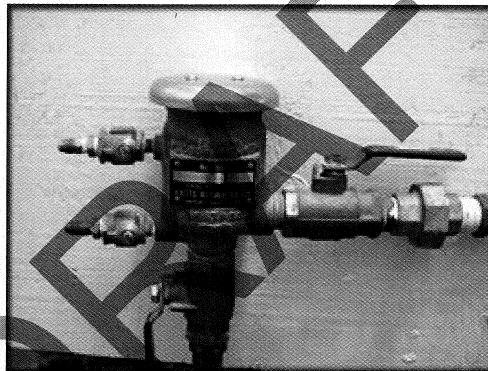
Test requirements

Reo Dell City rules require backflow preventers be tested every year. California Department of Public Health regulations (Title 17) direct us to keep records of these tests and issue notices when testing is due. This does not apply to lawn sprinkler systems unless they use booster pumps or chemical injection systems.

TESTABLE PREVENTERS

Pressure Vacuum Breaker (PVB):

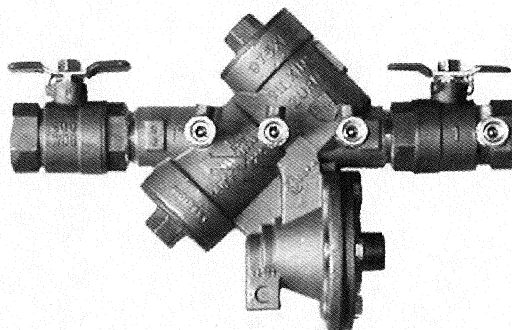
Typically found on underground water sprinkler systems.



Reduced Pressure Backflow Preventer (RP):

Typically found in high-hazard areas and some lawn sprinkler systems.

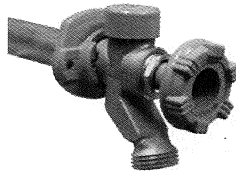
All commercial and residential boilers are required to be protected with this type of device (RP).



NON-TESTABLE PREVENTERS

Anti-Siphon Freezeless Wall Faucet:

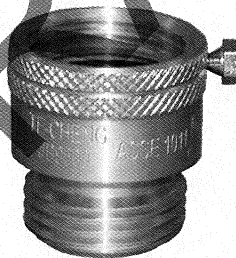
- A. This faucet is the newer type. It has a built-in antisiphon device.
- B. It may be used to fill a pool, bucket or sink of water.
- C. Homes built since 1992 already may be equipped with HVBs on all hose connections.



Hose Bibb Vacuum Breaker (HVB):

HVBs are needed on all hose connections:

- A. Hose sprayers which use water pressure to draw chemicals, like weed killer, into a stream of water.
- B. Hoses which are submerged into a bucket, pool or sink of water. The HVB prevents contaminants from being drawn back into the safe drinking water supply if a change in water pressure occurs. The device is inexpensive and easy to install. It can be purchased where plumbing supplies are sold. For best results, use a "freeze-proof, self-draining HVB."



Never submerge a hose without a Hose Bibb Vacuum Breaker (HVB) into a bucket, pool, tub or sink.

If you have any questions about cross contamination or backflow prevention, please call the City of Rio Dell Water Department at (707) 764-3541.

APPENDIX D
LIST OF PROPERTIES OWNER CERTIFIED AS NOT
HAVING AN AUXILARY WATER SUPPLY

DRAFT

Address	Record Source	Auxiliary Source	Comments	Owner Certification (NO WELL)
39 Bellevue	1991 1992 Certification Records			Yes
249 Bellevue	1991 1992 Certification Records			Yes
305 Bellevue	1991 1992 Certification Records			Yes
510 Bellevue	1991 1992 Certification Records			Yes
545 Davis	1991 1992 Certification Records			Yes
365 Hilltop	1991 1992 Certification Records			Yes
221 Monument Road	1991 1992 Certification Records			Yes
439 Northwestern	1991 1992 Certification Records			Yes
551 Northwestern	1991 1992 Certification Records			Yes
141 North Pacific	1991 1992 Certification Records			Yes
775 Pacific	1991 1992 Certification Records			Yes
1010 Pine	1991 1992 Certification Records			Yes
780 Rigby	1991 1992 Certification Records		Former City well supplies 1 small house.	Yes
1111 Riverside Drive	1991 1992 Certification Records			Yes
243 Sequoia	1991 1992 Certification Records			Yes
381 Sequoia	1991 1992 Certification Records			Yes
130 Webster	1991 1992 Certification Records			Yes
135 Webster	1991 1992 Certification Records			Yes
675 Wildwood	1991 1992 Certification Records			Yes
290 Willow	1991 1992 Certification Records			Yes
775 Pacific	1991 1992 Certification Records			Yes
Dinsmore Ranch	1991 1992 Certification Records	Spring		Yes

APPENDIX E
LIST OF PROPERTIES WITH POTENTIAL AUXILARY
WATER SUPPLY NOT OWNER CERTIFIED

DRAFT

Address	Record Source	Auxiliary Source	Comments	Owner Certification (NO WELL)
Brave Ranch	1991 1992 Certification Records	Possible Well		
920 Rio Del Ave.	1991 1992 Certification Records	Possible Well, Dentist		
349 Cherry Lane	1988 Program Table 1 Existing Water Sources	Spring		
597 View Ave	1988 Program Table 1 Existing Water Sources	Spring		
153 Elko Street	1988 Program Table 1 Existing Water Sources	Well	Former City well supplies 1 small house.	
381 Sequoia	1988 Program Table 1 Existing Water Sources	Well		
510 Painter	1988 Program Table 1 Existing Water Sources	Well		
Former Eel River Sawmills	1988 Program Table 1 Existing Water Sources	Wells	Existing City Wells	

**APPENDIX F
HUMBOLDT COUNTY LIST OF PROPERTIES WITH
WATER WELLS**

DRAFT

AP #	Applicant Last Name		Date Rec'd	Project Number	1st Corresp.	Date Approved	Date Sent
205-111-027	Rio Dell	City Wells	03/07/2001	00\01-534		03/06/2001	03/08/2001
052-281-001	Barisdale	555 Painter St	02/25/2003	02/03-0573		03/12/2003	03/12/2003
205-071-026	Ruggles	2643 Rio Vista	04/02/2003	02/03-0732		04/03/2003	04/07/2003
052-031-009	Ruggles	2643 Rio Vista	04/15/2003	02/03-0762		04/11/2003	04/17/2003
052-271-007	Salmon	480 Painter St	04/14/2003	02/03-0763		05/13/2003	05/23/2003
205-071-028	Allen	2727 Rio Vista	06/16/2003	02/03-0954		07/21/2003	07/24/2003
205-071-028	Allen	2727 Rio Vista	07/30/2004	04/05-0105		09/14/2004	09/16/2004
052-011-010	Bell	Blueslide Rd	07/28/2006	06/07-0080		08/16/2006	08/16/2006
052-011-005	Close	350 Woodland Ave	06/28/2007	06/07-0981		07/25/2007	07/25/2007
052-191-012	Throgmorton	2401 Rio Vista	05/20/2011	10/11-0601		06/02/2011	06/02/2011

DRAFT

APPENDIX G
COVER LETTERS FOR PROPERTIES PREVIOUSLY
IDENTIFIED AS HAVING AUXILIARY WATER SUPPLIES

DRAFT

675 Wildwood Avenue
Rio Dell, CA 95562
(707) 764-3532



To: Residential Water Users with **Groundwater Wells or Springs**

From: Rio Dell Public Works Department

Date: March 1, 2012

Subject: Protecting Rio Dell's Drinking Water

As required by the State of California Administrative Code (Title 17), it is the responsibility of the City of Rio Dells to protect the public drinking water supply from contamination that might occur through unintentional "backflow." Backflow is the undesirable reversal of flow in a drinking water distribution system which may introduce objectionable substances into the drinking water system.

A backflow situation could occur if the drinking water system suddenly loses pressure. For example, if large quantities of water are being pulled from the system to fight a fire, or there is a pipeline break with the loss of significant amounts of water.

City of Rio Dell records or Humboldt County well permit files indicate that there is a secondary water source on your property (well or spring).

If the well has been plugged according to Humboldt County Rules please provide documentation along with the completed residential survey form.

As part of this ongoing process City of Rio Dell is requesting that you review the information enclosed, complete the enclosed Residential Cross-Connection Questionnaire, and return it to City Hall. Your cooperation is essential for the keeping our drinking water safe. If you have any questions please call:

Randy Jensen at (707) 764-3541

City of Rio Dell

Residential Cross-Connection Questionnaire

Please read the enclosed brochure, look over the plumbing in your home and answer the questions below. Thank you for helping the City of Rio Dell meet this State of California regulation.

Please return by: _____

Question	Yes	No	Do not know
1. Is there any other source of water, such as a private well, spring, or pond at this address?			
If yes, is it protected by a testable backflow preventer?			
2. Do you have an irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected.?			
If yes, is it protected by a testable backflow preventer?			
3. Do you have a swimming pool or hot tub that is filled by a direct water line?			
If you fill it by direct water line, is it protected by a reduced pressure backflow preventer? (See brochure)			
4. To heat your home, do you use a hot water or steam boiler? (Not hot water heater)			
If yes, is it protected by a reduced pressure backflow preventer?			
(All boilers are required to have a RP)			
Are chemicals used in the water?			
If yes, please list the chemicals:			
5. Do you have a photo lab, medical, biological, veterinarian or farm equipment, or any other chemical or medical labs or facilities at this address?			
If yes, is it protected by a testable backflow preventer?			

The California Department of Public Health, Title 17 of the California Code of Regulations (Sections 7584-7605) directs us to survey all our customers, keep records of all tests on testable backflow preventers, and issue a reminder notice when testing is due. The customer shall provide access for inspection and testing by the City at all reasonable times to determine whether cross connections, sanitary hazards or other violations of the City's water rules exist.

Thank you. This survey will help prevent accidental contamination of our drinking water system. Please print name, phone number, sign, and Date.

Name (print) _____

Address _____

Phone number _____

Signature _____

Date _____

If you have any questions about cross contamination or backflow prevention, please call the City of Rio Dell Water Department at (707) 764-3541.

Cross Connections and Backflow Prevention

Potential cross connection areas	Protect yourself from backflow incidents
1. Commercial and Industrial Bottling plants Fire systems Heating and cooling systems Mixing tanks Paint and ink mills Printing plants Plating works Mortuaries Veterinary clinics Dental clinics Medical clinics Water-cooled equipment	<p>1. Check your faucets to make sure all faucet endpoints are above the flood level of the sink, tub, basin or other apparatus they supply.</p> <p>2. Protect your faucet extensions by installing proper backflow prevention devices on all faucets capable of having a hose or other extension attached.</p> <p>3. Check drain lines (refrigerator drink dispensers, water softeners, heat exchangers, etc.) to make sure there is an adequate air gap between the drain line and the floor drain or sewer line into which they discharge.</p> <p>4. Never use unprotected faucets to fill non-drinking water containers (i.e., water beds, wading pools, stock tanks, hot tubs, etc.).</p>
2. Leisure Areas Campgrounds County fairgrounds Parks and play grounds Golf courses Swimming pools Fountains Recreation waterfront areas Recreational vehicle connections	
3. Residential Basement and outdoor Hose connections Sprinkler systems Swimming pools Hot tub or spa Chemical/photo lab facilities Livestock waterers, tank fillers Solar heating systems Boilers	Phone numbers Water emergencies (707) 764-3541.

DEFINITIONS

Cross Connection: An actual or potential connection between the safe drinking water supply and a source of contamination or pollution. All cross connections need backflow preventers.

Backflow Preventer: A device or process that prevents impurities or contaminants from being drawn into the safe drinking water supply. There are testable and nontestable preventers.

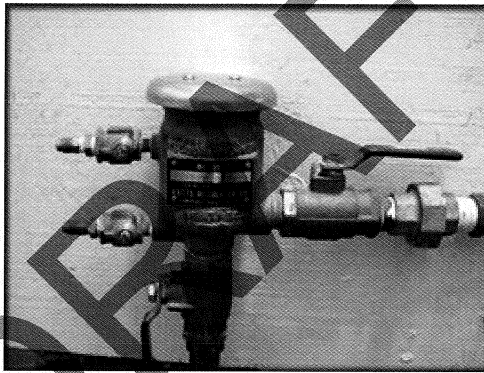
Test requirements

Reo Dell City rules require backflow preventers be tested every year. California Department of Public Health regulations (Title 17) direct us to keep records of these tests and issue notices when testing is due. This does not apply to lawn sprinkler systems unless they use booster pumps or chemical injection systems.

TESTABLE PREVENTERS

Pressure Vacuum Breaker (PVB):

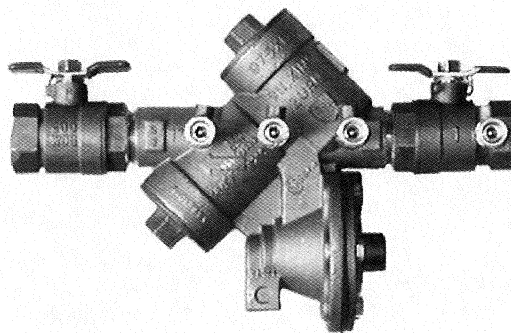
Typically found on underground water sprinkler systems.



Reduced Pressure Backflow Preventer (RP):

Typically found in high-hazard areas and some lawn sprinkler systems.

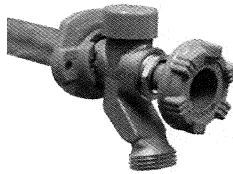
All commercial and residential boilers are required to be protected with this type of device (RP).



NON-TESTABLE PREVENTERS

Anti-Siphon Freezeless Wall Faucet:

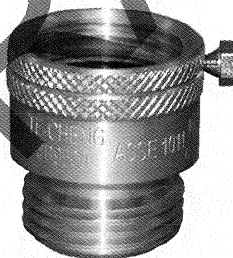
- A. This faucet is the newer type. It has a built-in antisiphon device.
- B. It may be used to fill a pool, bucket or sink of water.
- C. Homes built since 1992 already may be equipped with HVBs on all hose connections.



Hose Bibb Vacuum Breaker (HVB):

HVBs are needed on all hose connections:

- A. Hose sprayers which use water pressure to draw chemicals, like weed killer, into a stream of water.
- B. Hoses which are submerged into a bucket, pool or sink of water. The HVB prevents contaminants from being drawn back into the safe drinking water supply if a change in water pressure occurs. The device is inexpensive and easy to install. It can be purchased where plumbing supplies are sold. For best results, use a "freeze-proof, self-draining HVB."



Never submerge a hose without a Hose Bibb Vacuum Breaker (HVB) into a bucket, pool, tub or sink.

If you have any questions about cross contamination or backflow prevention, please call the City of Rio Dell Water Department at (707) 764-3541.

**APPENDIX H
COVER LETTERS AND COMMERCIAL CROSS-
CONNECTION CONTROL SURVEY FORMS**

DRAFT

675 Wildwood Avenue
Rio Dell, CA 95562
(707) 764-3532



To: Commercial Water Users

From: Rio Dell Public Works Department

Date: March 1, 2012

Subject: Protecting Rio Dell's Drinking Water

As required by the State of California Administrative Code (Title 17), it is the responsibility of the City of Rio Dells to protect the public drinking water supply from contamination that might occur through unintentional "backflow." Backflow is the undesirable reversal of flow in a drinking water distribution system which may introduce objectionable substances into the drinking water system.

A backflow situation could occur if the drinking water system suddenly loses pressure. For example, if large quantities of water are being pulled from the system to fight a fire, or there is a pipeline break with the loss of significant amounts of water.

An example is a home or business fire sprinkler system. Such a system gets its water from the same source as that building's drinking water. However, water can sit in the fire sprinkler line, become stale and sour, and be unfit for drinking. A backflow prevention assembly in this example has a valve which only allows water to move in one direction, so it will prevent the stale water in the sprinkler lines from reversing and getting into the drinking water system. The same goes for landscape irrigation pipelines for a home or business, or an industrial site that uses chemicals and water.

Harmful or objectionable substances may be gases, liquids, or solids such as chemicals, waste products, contents of auxiliary water systems (like groundwater wells and springs), or another substance that may change the color, add odor, or in any way change the quality of the drinking water.

Protecting the City's drinking water supply can only be achieved by identifying sites at possible risk for harmful backflow, and by periodically inspecting and evaluating backflow prevention assemblies.

As part of this ongoing process City of Rio Dell is requesting that you review the information enclosed, complete the enclosed Commercial Cross-Connection Questionnaire, and return it to City Hall. Your cooperation is essential for the keeping our drinking water safe. If you have any questions please call: Randy Jensen at (707) 764-3541

City of Rio Dell Commercial Cross-Connection Questionnaire

Please read the enclosed brochure, look over the plumbing in your business and answer the questions below. Thank you for helping meet this State of California regulation.

Please return by: _____

Question	Yes	No	Do not know
1. Is there any other source of water, such as a private well, at this address?			
If yes, is it protected by a testable backflow preventer?			
2. Do you have a swimming pool or hot tub that is filled by a direct water line?			
If you fill it by direct water line, is it protected by a reduced pressure backflow preventer? (See brochure)			
3. Do you have an irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected.?			
If yes, is it protected by a testable backflow preventer?			
4. Do you have hot water or steam boilers (not water heaters)?			
If yes, is it protected by a testable backflow preventer?			
Are chemicals used in the water?			
If yes, please list the chemicals:			
5. Do you have cooling tower?			
If yes, is it protected by a testable backflow preventer?			
Are chemicals used in the water?			
If yes, please list the chemicals:			
6. Do you have a photo lab, medical, biological, veterinarian or farm equipment, or any other chemical use or medical labs or facilities at this address?			
If yes, is it protected by a testable backflow preventer?			
7. Do you use a hose aspirator for spraying chemicals?			
(All hose connections should have a hose bib vacuum breaker - see brochure)			
If yes, is it protected by a hose bib vacuum breaker?			
8. Do you have a fire suppression system?			
If yes, is it protected by a testable backflow preventer?			
9. Do you have a water truck or tank water filling station or pipe?			
If yes, is it protected by a testable backflow preventer?			
Are chemicals used in the water?			
If yes, please list the chemicals:			
10. Do you have a water cooled compressor?			
If yes, is it protected by a testable backflow preventer?			
11. Do you have a post mix carbonator?			
If yes, is it protected by a testable backflow preventer?			
12. Do you have or use yard hydrants on your property?			
If yes, is it protected by a testable backflow preventer?			

	Yes	No	Do not know
13. Are any pumps hooked to plumbing?			
If yes, please check all that apply:			
Fountain____ Pressure Booster____ Sewer____			
Other (please list)_____			

14. Please list all other water processes connected to the drinking water piping:

The California Department of Public Health, Title 17 of the California Code of Regulations (Sections 7584-7605) directs us to survey all our customers, keep records of all tests on testable backflow preventers, and issue a reminder notice when testing is due. The customer shall provide access for inspection and testing by the City at all reasonable times to determine whether cross connections, sanitary hazards or other violations of City's water rules exist.

Thank you. This survey will help prevent accidental contamination of our drinking water system. Please print name, phone number, sign, and Date.

Name (print)_____

Address_____

Phone number_____

Signature_____

Date_____

If you have any questions about cross contamination or backflow prevention, please call the City of Rio Dell Water Department at (707) 764-3541.

Cross Connections and Backflow Prevention

Potential cross connection areas

1. Commercial and Industrial

Bottling plants
Fire systems
Heating and cooling systems
Mixing tanks
Paint and ink mills
Printing plants
Plating works
Mortuaries
Veterinary clinics
Dental clinics
Medical clinics
Water-cooled equipment

2. Leisure Areas

Campgrounds
County fairgrounds
Parks and play grounds
Golf courses
Swimming pools
Fountains
Recreation waterfront areas
Recreational vehicle connections

3. Residential

Basement and outdoor Hose connections
Sprinkler systems
Swimming pools
Hot tub or spa
Chemical/photo lab facilities
Livestock waterers, tank fillers
Solar heating systems
Boilers

Protect yourself from backflow incidents

1. Check your faucets to make sure all faucet endpoints are above the flood level of the sink, tub, basin or other apparatus they supply.

2. Protect your faucet extensions by installing proper backflow prevention devices on all faucets capable of having a hose or other extension attached.

3. Check drain lines (refrigerator drink dispensers, water softeners, heat exchangers, etc.) to make sure there is an adequate air gap between the drain line and the floor drain or sewer line into which they discharge.

4. Never use unprotected faucets to fill non-drinking water containers (i.e., water beds, wading pools, stock tanks, hot tubs, etc.).

Phone numbers

Water emergencies (707) 764-3541.

DEFINITIONS

Cross Connection: An actual or potential connection between the safe drinking water supply and a source of contamination or pollution. All cross connections need backflow preventers.

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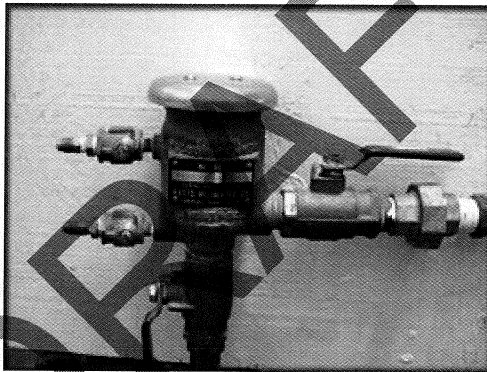
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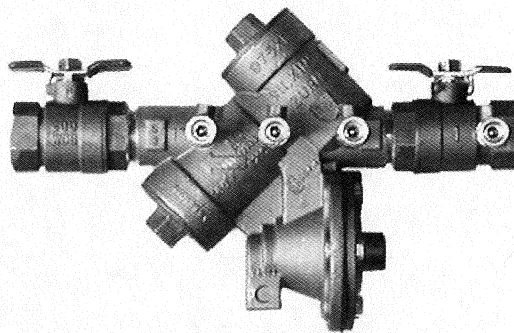
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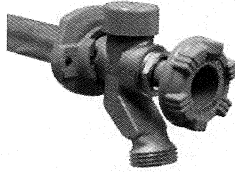
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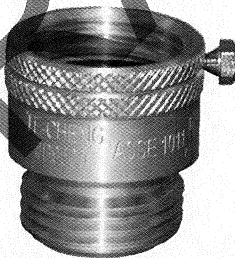
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**APPENDIX I
HUMOLDT COUNTY LIST OF RIO DELL SITES
REGULATED FOR THE USE OF HAZARDOUS
MATERIALS**

DRAFT

Humboldt County File Number	Facility Name	Address	Database (HW-Hazardous Waste)
2288	Rio Dell Automotive	23 Center St	CRTK, HW
2125	Auto Parts	33 Center St	CRTK, HW
1404	Ray E. Summers	1403 Eeloa Avenue	CRTK, HW
2164	CDOT Hwy Paint	1473 Eeloe Avenue	CRTK, HW
1576	Rio Dell WWTP	475 Hilltop Drive	LOP, RMP, CRTK, HW
49	SBC Communications Inc.	420 Sequoia St	CRTK, RB, Archive, HW 2287 F.
2287	F.D. Thomas, Inc. Rio Dell Bridge Painting	45 Wildwood Ave	CRTK, HW
473	M & M Automotive	100 Wildwood Ave	CRTK, LOP, HW, Archive
756	HPI, Rio Dell Shell	582 Wildwood Avenue	LOP, UST, CRTK, Archive, HW
836	Brian's 76 & Auto Repair	609 Wildwood Avenue	LOP, HW, CRTK
250	Imperiale Trucking	611 Wildwood Ave.	CRTK, Archive, HW
2175	Kreations Auto Body	750 Wildwood Ave.	CRTK, HW

DRAFT